

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT NO. ST 6158
HAROLD LEMAY ENTERPRISES, INC.
ABERDEEN SANITARY LANDFILL, POST CLOSURE

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
BACKGROUND INFORMATION	2
DESCRIPTION OF THE FACILITY	2
History	2
Industrial Processes	3
Treatment Processes	3
PERMIT STATUS	3
SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT	3
WASTEWATER CHARACTERIZATION	3
PROPOSED PERMIT LIMITATIONS	3
TECHNOLOGY-BASED EFFLUENT LIMITATIONS	4
EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS	
COMPARISON OF LIMITATIONS WITH THE EXISTING PERMIT ISSUED DECEMBER 22,	
1999	4
MONITORING REQUIREMENTS	4
OTHER PERMIT CONDITIONS	5
REPORTING AND RECORDKEEPING	5
OPERATIONS AND MAINTENANCE	5
PROHIBITED DISCHARGES.....	5
DILUTION PROHIBITED	5
GENERAL CONDITIONS.....	5
PUBLIC NOTIFICATION OF NONCOMPLIANCE	6
RECOMMENDATION FOR PERMIT ISSUANCE	6
REFERENCES FOR TEXT AND APPENDICES	6
APPENDICES	7
APPENDIX A – PUBLIC INVOLVEMENT INFORMATION	7
APPENDIX B – GLOSSARY	8
APPENDIX C---TECHNICAL CALCULATIONS	
APPENDIX D – RESPONSE TO COMMENTS.....	13
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INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST 6158. The Department of Ecology (Department) is proposing to issue this permit, which will allow discharge of wastewater to the Aberdeen Wastewater Treatment Plant. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law [Revised Code of Washington (RCW) 90.48.080 and 90.48.160] requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities that discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit [Chapter 173-216 Washington Administrative Code (WAC)].

This fact sheet and draft permit are available for review by interested persons as described in Appendix A - Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Changes to the permit will be addressed in Appendix D - Response to Comments.

GENERAL INFORMATION	
Applicant:	Harold LeMay Enterprises, Inc
Facility Name and Address:	4201 Olympic Highway Aberdeen, WA 98520
Type of Facility:	Sanitary landfill
Facility Discharge Location:	Latitude: 46° 58' 33" N Longitude: 123° 45' 02" W.
Treatment Plant Receiving Discharge:	Aberdeen Wastewater Treatment Plant, Outfall Location: Latitude: 46° 57' 51" N Longitude: 123° 49' 39" W.
Contact at Facility:	Name: Delroy Cox Telephone #: (360) 533-1251
Responsible Official:	Name: Delroy Cox Title: Manager Address: 4201 Olympic Highway Telephone #: (360) 533-1251 FAX # (360) 533-2507

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

This site is a closed solid waste landfill. It is a significant industrial user since it discharges more than 25,000 gallons per day in the wet season. There are no categorical standards for this sort of operation.

HISTORY

The Aberdeen Sanitary Landfill has been owned and operated by Harold LeMay Enterprises, Inc. since its inception in 1965. The total land area encompasses about 31 acres that was originally a marshland similar to the surrounding area. Refuse has been placed below the original ground elevation by excavating native material. From 1975 through 1979 low permeability berms and perimeter ditches were constructed around the landfill to contain leachate. These perimeter ditches drained to the westerly end of the landfill where the leachate was conveyed via a culvert to an internal ditch and then to an earthen pump out pond. From this pond the leachate could be pumped to an onsite irrigation system or to a tanker truck for hauling to the Aberdeen Wastewater Treatment Plant. The onsite irrigation system drained to a storage lagoon on the north side that flows into the perimeter ditch for recirculation.

In the fall of 1985, construction of a perimeter leachate toe seep collection system commenced and continued through the fall of 1986. This system collected and conveyed leachate to a pump-out station on the west side of the site. In addition, perimeter surface water drainage ditches were constructed which conveyed rainfall runoff away from properly closed portions of the landfill.

As the site was filled to final grade and covered with a low permeability cap, the leachate quantity was reduced allowing the perimeter leachate collection ditches to be replaced with perimeter surface water ditches and an access road. Operation of the new landfill cover system, the leachate management system, and the surface water management system were integrated with the previously constructed systems to provide for continuity of operation and reduction for the potential for environmental contamination. The site was officially closed by a permit from Grays Harbor County dated December 31, 1994. Closure was in accordance with a sampling plan dated April 4, 1989, and a cover plan dated October 4, 1985. Both before and after closure the site has been owned and operated by Aberdeen Sanitation, a division of LeMay Enterprises who hold title to the land upon which the landfill is located.

Aberdeen Sanitation facilities on site include an administrative office, garage, public transfer station, salvage building, and fuel station at the easterly corner of the landfill site. This four-acre area provides service support for Aberdeen Sanitary Landfill and Aberdeen Sanitation Inc., a refuse collection operation of Harold LeMay Enterprises, Inc.

The administrative office and garage provide employee facilities including communications, lunchroom and restrooms.

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT NO. ST 6158

Harold Lemay Enterprises, Inc.

Aberdeen Sanitary Landfill, Post Closure

INDUSTRIAL PROCESSES

Aberdeen Sanitation's permit at this site is issued to control leachate from a closed landfill. This is an existing discharge. The volume of leachate produced varies with seasonal rainfall from 45000 gpd to 100,000 gpd.

TREATMENT PROCESSES

There is no treatment process at this location.

PERMIT STATUS

The previous permit for this facility was issued on December 26, 1999. An application to renew this permit was received on March 30, 2004 and accepted on April 5, 2004.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on May 28, 2003

During the history of the previous permit, the Permittee has not remained in compliance based on Discharge Monitoring Reports (DMRs) and other reports submitted to the Department and inspections conducted by the Department. In April of 2002, the permittee neglected to report BOD and oil and grease.

Since the existing permit was issued, there has been one exceedance of the pH minimum limit. There was one instance when the Permittee neglected to test for oil and grease.

WASTEWATER CHARACTERIZATION

The concentration of pollutants in the discharge was reported in the permit application and in discharge monitoring reports. The proposed wastewater discharge is characterized for the following parameters:

Parameter	Concentration, 2000	Concentration, 2005
BOD ₅ , mg/L	115	25
Total Suspended Solids, mg/L	306	120
pH, S.U.	4 to 8	6.2 to 7.7
Oil and grease, mg/L	8.4	4.4

As can be seen, all parameters have reduced significantly. The pollutants in the landfill are leaching steadily. Permit renewal in 2010 should consider permit cancellation.

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of

the pollutants to the Publicly Owned Treatment Works (POTW) (local limits). Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not interfere with the operation of the POTW.

The more stringent of the local limits-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). No categorical standards exist for this operation.

EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS

In order to protect the Aberdeen Wastewater Treatment Plant from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, limitations for certain parameters are necessary. These limitations are based on local limits established by the Aberdeen Wastewater Treatment Plant and codified in ordinance. Applicable limits for this discharge include the following:

Parameter	Concentration
Temperature, °Celsius	65
pH, S.U.	Range 5.5 to 9
Oil and Grease, mg/L	300
Total Suspended Solids, mg/L	350
Biochemical Oxygen Demand, 5 day mg/L	300

COMPARISON OF LIMITATIONS WITH THE EXISTING PERMIT ISSUED DECEMBER 22, 1999

Existing Limits	Proposed Limits
Identical	Identical

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110). The monitoring point is the wet well where leachate is collected and stored before being pumped into the transport vehicles.

The monitoring schedule is detailed in the proposed permit under Condition S1. Specified monitoring frequencies take into account the quantity and variability of the discharge, the

treatment method, past compliance, significance of pollutants, and cost of monitoring. Since metals monitoring has shown either non-detectable concentrations or insignificant concentrations, metals monitoring has been eliminated from the permit.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S2 are based on the authority to specify any appropriate reporting and record keeping requirements to prevent and control waste discharges [WAC 273-216-110 and 40 CFR 403.12 (e), (g), and (h)].

OPERATIONS AND MAINTENANCE

The proposed permit contains Condition S.3. as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the POTW. These include substances that cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

DILUTION PROHIBITED

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed

pollutants into the effluent stream for discharge. Condition G11 requires the payment of permit fees. Condition G12 describes the penalties for violating permit conditions.

PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for five years.

REFERENCES FOR TEXT AND APPENDICES

APPENDICES

APPENDIX A – PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on March 21, 2004 and March 28, 2004 in Aberdeen's *the Daily World* to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department will publish a Public Notice of Draft (PNOD) on November 2, 2004 in Aberdeen's *The Daily World* to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Industrial Unit Permit Coordinator
Department of Ecology
Southwest Regional Office – Water Quality
P.O. Box 47775
Olympia, WA 98504-7775

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (360) 407-6285, or by writing to the address listed above.

This permit was written by Gary Anderson.

APPENDIX B – GLOSSARY

Ammonia—Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Average Monthly Discharge Limitation—The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD₅--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD₅ is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass—The intentional diversion of waste streams from any portion of the collection or treatment facility.

Categorical Pretreatment Standards—National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots).

Construction Activity—Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Engineering Report—A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Grab Sample—A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial User—A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

Industrial Wastewater—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Interference—A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal and;

Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Local Limits—Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

Maximum Daily Discharge Limitation—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Pass-through— A discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

pH— The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Potential Significant Industrial User--A potential significant industrial user is defined as an Industrial User which does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

- a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day or;
- b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

The Department may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

Quantitation Level (QL)-- A calculated value five times the MDL (method detection level).

Significant Industrial User (SIU)--

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

Slug Discharge— Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

State Waters—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Coliform Bacteria—A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

Total Dissolved Solids—That portion of total solids in water or wastewater that passes through a specific filter.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Water Quality-based Effluent Limit—A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

APPENDIX C-TECHNICAL CALCULATIONS

Wastewater Characterization

Date	Temp. °C	pH Min S.U.	pH Max S.U.	O&G mg/L	TSS mg/L	BOD mg/L	FLOW gpd
10/1/2000	11	6.2	7.5	1.2	56	38	67500
1/1/2001	10	6.6	7.5	0	139	15	85000
4/4/2001	12	6.6	7.6	1.4	110	19	60000
7/1/2001	14	6.8	7.7	1	115	31	45500
10/1/2001	11	6.3	7.8	1.5	112	33	43700
1/1/2002	11	6.2	7.1	5.9	102	17	87500
4/1/2002	14	6.5	7.5	0	110	18	87500
7/1/2002	33	6.9	7.1	18	126	25	45500
10/1/2002	13	6.6	7.4	3.6	126	40	100000
1/1/2003	13	6.5	7.1	5.9	150	14	88000
4/1/2003	18	6.6	7.2	6.6	202	22	81000
10/1/2003	13	6.5	7.7	7.7	87	23	99500
AVG	14.41666	6.525	7.433333	4.4	119.5833	24.58333	74225

*FACT SHEET FOR STATE WASTE DISCHARGE PERMIT NO. ST 6158
Harold Lemay Enterprises, Inc.
Aberdeen Sanitary Landfill, Post Closure*

APPENDIX D – RESPONSE TO COMMENTS

No comments were received.